AMENDMENT TO THE CLAIMS

1. (Currently Amended) An alignment processing mechanism comprising:

a conveying mechanism for conveying a substrate to be processed,

an alignment mechanism for ~~aligning~~ detecting an orientation-flat of the substrate conveyed by the conveying mechanism and for aligning the orientation-flat to a predetermined direction by causing the substrate to rotate, and

a buffer mechanism for relaying the substrate from the conveying mechanism to the alignment mechanism,

wherein the buffer mechanism ~~is adapted to~~ temporarily ~~hold~~ holds the substrate conveyed by the conveying mechanism, and ~~to pass~~ passes the ~~temporarily holding~~ substrate to the alignment mechanism by changing a relative position of the substrate to the alignment mechanism based on a state of the alignment mechanism, in such a manner that a center of the substrate is located on a rotational axis of the alignment mechanism.

2. (Previously Cancelled)

3. (Original) An alignment processing mechanism according to claim 1, further comprising:

a second conveying mechanism for conveying the substrate aligned by the alignment mechanism.

4. (Original) An alignment processing mechanism according to claim 1, wherein:

2

the buffer mechanism has at least two holding members for holding the substrate in a vicinity of the alignment mechanism.

5. (Original) An alignment processing mechanism according to claim 4, wherein:

the holding members are integratedly able to move vertically with respect to the alignment mechanism, in order to pass the substrate held thereby to the alignment mechanism.

6. (Original) An alignment processing mechanism according to claim 4, wherein:

each of the holding members has a supporting member for supporting a reverse surface of the substrate.

7. (Original) An alignment processing mechanism according to claim 6, wherein:

the supporting member of each of the holding members is adapted to rotate in such a manner that the supporting member goes away from the reverse surface of the substrate.

8. (Original) An alignment processing mechanism according to claim 7, wherein:

each of the holding members has: a supporting surface for coming in contact with and supporting the reverse surface of the substrate, and a tapered surface inclined from the supporting surface and formed correspondingly to an outside periphery of the substrate.

9. (Original) An alignment processing mechanism according to claim 8, wherein:

an alignment mechanism has a stage for being placed the substrate, and a driving mechanism for causing the stage to rotate in a horizontal plane.

10. (Currently Amended) A semiconductor processing unit comprising:

an alignment means for placing a substrate to be processed onto a stage and for conducting an alignment process , for detecting an orientation-flat of the substrate, and for aligning the orientation-flat to a predetermined direction by causing the substrate stage to rotate,

a buffer means for temporarily holding another substrate in a vicinity of the stage while the alignment process is conducted,

a means for moving the stage and the buffer means relatively to each other and placing the substrate held by the buffer means onto the stage in such a manner that a center of the substrate is located on a rotational axis of the stage, and

at least a conveying means for passing or receiving the substrate to or from the alignment means and/or the buffer means.

11. (Original) A semiconductor processing unit according to claim 10, wherein:

the buffer means has:

a plurality of holding members arranged around the stage and capable of holding the substrate, and

4

a means for switching a position of the plurality of holding members between a first position wherein the plurality of holding members hold the substrate and a second position wherein the plurality of holding members are away from a space in which the substrate may move.

12. (Original) A semiconductor processing unit according to claim 11, wherein:

each of the plurality of holding members is provided at an upper portion of each of a plurality of supporting members vertically standing around the stage and at substantially regular intervals with respect to a peripheral direction, and

at least one of intervals between any two of the plurality of supporting members under a situation that the plurality of holding members are located higher than the stage is an interval through which the substrate held by the conveying means can move.

13. (Original) A semiconductor processing unit according to claim 11, wherein:

each of the plurality of holding members has

a holding surface for supporting a peripheral portion of a reverse surface of the substrate when the plurality of holding members are located at the first position, and

a tapered portion formed by a slope extending outward and upward from the holding surface, and

a border between the holding surface and the tapered portion forms a line substantially corresponding to an outside periphery of the substrate while the substrate is held.

14.   (Original) A semiconductor processing unit according to claim 10, further comprising:

a first conveying means for passing the substrate to the buffer means, and

a second conveying means for receiving the substrate from the stage.

15.   (Original) A semiconductor processing unit according to claim 10, further comprising:

a containing means for containing a plurality of substrates, and

a processing chamber for conducting a process to a substrate,

wherein the containing means, the alignment means and the processing chamber are arranged on substantially a straight line.

16.   (Original) A semiconductor processing unit according to claim 10, further comprising:

a plurality of containing means, each of which is adapted to contain a plurality of substrates, and

a plurality of processing chambers, each of which is adapted to conduct a process to a substrate,

wherein the plurality of containing means, the alignment means and the plurality of processing chambers are arranged around the conveying means.

6

17. (Currently Amended) A semiconductor processing unit according to claim 10, further comprising:

an alignment chamber having the alignment means, the buffer means and a first conveying means,

a containing means arranged adjacently to the alignment chamber, for containing the substrate,

a load-lock means arranged adjacently to the alignment chamber,

a conveying chamber arranged adjacently to the load-lock means, having a second conveying means, and

a vacuum processing chamber arranged adjacently to the conveying chamber, for conducting a vacuum process to the substrate,

wherein the first conveying means ~~is adapted to take out~~ removes the substrate from the containing means, ~~to pass~~ passes the substrate to the buffer means, ~~to receive~~ receives the substrate from the stage of the alignment means and ~~to convey~~ conveys the substrate to the load-lock means, and

the second conveying means ~~is adapted to receive~~ receives the substrate from the load-lock means and ~~convey~~ conveys the substrate to the vacuum process chamber.

18. (Currently Amended) ~~The alignment processing mechanism according to claim 1,~~

An alignment processing mechanism comprising:

a conveying mechanism for conveying a substrate to be processed,

7

an alignment mechanism for aligning the substrate conveyed by the conveying mechanism to a predetermined direction by causing the substrate to rotate, and

a buffer mechanism for relaying the substrate from the conveying mechanism to the alignment mechanism,

wherein the buffer mechanism is adapted to temporarily hold the substrate conveyed by the conveying mechanism, and to pass the temporarily holding substrate to the alignment mechanism by changing a relative position of the substrate to the alignment mechanism based on a state of the alignment mechanism, in such a manner that a center of the substrate is located on a rotational axis of the alignment mechanism,

wherein the buffer mechanism surrounds a space through which the alignment mechanism is moved.